

## CLAIMS:

1. Method for de-interlacing a hybrid video sequence using at least one estimated motion vector for interpolating pixels with the steps of:
  - defining pre-defined values for a first motion vector and a second motion vector,
  - 5 - calculating at least one first pixel using at least one pixel of a previous image and said first motion vector,
  - calculating at least one second pixel using at least one pixel of a next image and said second motion vector,
  - calculating a reliability of said first and said second motion vector by
  - 10 comparing at least said first pixel with at least said second pixel, said first and said second motion vectors being pre-defined for said calculation of reliability, and
  - estimating an actual value for a motion vector which turned out to be most reliable for de-interlacing said image.
- 15 2. Method of claim 1, wherein said pre-defined values for said motion vectors are related to each other.
3. Method of claim 1, wherein said pre-defined values for said motion vectors are inverted.
- 20 4. Method of claim 1, wherein one of said pre-defined values for said motion vectors has a value of zero and one of said pre-defined values for said motion vectors has an actual estimation value calculated from pixels of said previous and/or current and/or following image.
- 25 5. Method of claim 1, wherein the reliability of said motion vectors is calculated by calculating at least two error criteria, wherein for each of said error criteria different values for said pre-defined values for said motion vectors are chosen.

6. Method of claim 5, wherein said error criteria is calculated from an absolute sum over a block of pixels.
7. Method of claim 5, wherein said error criteria and/or said sum are modified  
5 according to an error criterion estimated to occur most frequently within at least parts of said image and/or the respective error criterion to be modified.
8. Method of claim 5, wherein said error criteria and/or said sum are modified  
10 depending on the error criteria calculated for temporally and/or spatially neighbouring blocks.
9. Display device for displaying a de-interlaced video signal comprising definition means for defining values for a first motion vector and a second motion vector,  
- first calculation means for calculating at least one first pixel using at least one  
15 pixel of a previous image and said first motion vector,  
- second calculation means for calculating at least one second pixel using at least one pixel of a next image and said second motion vector,  
- third calculation means for calculating a reliability of said first and said second motion vector by comparing at least said first pixel with at least said second pixel, said first  
20 and said second motion vectors being pre-defined for said calculation of reliability, and  
- estimation means for estimating an actual value for a motion vector which turned out to be most reliable for de-interlacing said image.
10. Computer programme for de-interlacing a video signal operable to cause a  
25 processor to  
- define values for a first motion vector and a second motion vector,  
- calculate at least one first pixel using at least one pixel of a previous image and said first motion vector,  
- calculate at least one second pixel using at least one pixel of a next image and  
30 said second motion vector,  
- calculate a reliability of said first and said second motion vector by comparing at least said first pixel with at least said second pixel, said first and said second motion - vectors being pre-defined for said calculation of reliability, and

- estimate an actual value for a motion vector which turned out to be most reliable for de-interlacing said image.